

TacSat-4 enables polar region SatCom experiment

March 9 2012



On mission in the Bering Sea, US Coast Guard Cutter HEALY participates in tests of TacSat-4 communications. Credit: US Coast Guard

The U.S. Coast Guard Cutter HEALY (WAGB 20) successfully experimented with NRL's TacSat-4 communications satellite, Jan. 24, by communicating from the Bering Sea off the western coast of Alaska to Coast Guard Island, Alameda, Calif.

Returning from an escort and icebreaking mission to Nome, Alaska, assisting the Russian tanker Renda delivery of emergency fuel to the town, USCGC HEALY — [Coast](#) Guard's only polar icebreaker — was approximately 260 nautical miles south of the Arctic Circle at the time of the test.

Deployed into a unique, highly elliptical orbit with an apogee of 12,050 kilometers, TacSat-4 helps augment current geosynchronous satellite communication by including the high latitudes. The experiment was the first in a series of planned steps that aim to demonstrate TacSat-4's utility in the polar and arctic regions.

Also participating in communications with HEALY was the Army Space and Missile Defense Battle Lab (SMDBL) located in Colorado Springs, Col. The SMDBL team was conducting portions of the ongoing TacSat-4 Joint Military Utility Assessment (JMUA).

Managed by the U.S. Naval Research Laboratory, Naval Center for Space Technology, TacSat-4 is an experimental spacecraft that will test advances in several technologies and SATCOM techniques. It will augment the existing fleet with an additional space asset to provide communications to otherwise under-served users and areas that either do not have high enough priority or do not have satellite visibility.

The Office of Naval Research (ONR) is funding the first year of TacSat-4 operations. The Operationally Responsive [Space](#) (ORS) Office is leading and funding the JMUA of TacSat-4.

Provided by Naval Research Laboratory

Citation: TacSat-4 enables polar region SatCom experiment (2012, March 9) retrieved 26 April 2024 from <https://phys.org/news/2012-03-tacsat-enables-polar-region-satcom.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.